

General Safety

WAC 296-818-200

Section Contents

YOUR RESPONSIBILITY:

To protect employees from hazards associated with their work environment

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Dust hazards

IMPORTANT:

- Abrasives and the surface coatings on materials blasted are shattered and pulverized during blasting operations. The dust formed will contain particles that could result in the following hazards:
 - Respiratory
 - Fire
 - Explosion
- Wet blasting methods minimize dust exposure, but dispersed droplets, mists, and dried residues may become airborne and create potential exposures.

You must

- Evaluate the potential health hazards from abrasive blasting operations by considering the composition and toxicity of the abrasive material and the surface being abraded.



References:

- For additional hazard assessment requirements, go to these separate chapters:
 - Respirators, Chapter 296-842 WAC
 - The Safety and Health Core Rules, Chapter 296-800 WAC
 - Personal Protective Equipment, WAC 296-800-16005.
- For requirements on the use of combustible organic abrasive, go to WAC 296-818-30005.

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Dust hazards (continued)

You must

- Keep dust concentrations below the permissible exposure limits found in a separate chapter, Respiratory Hazards, Chapter 296-841 WAC.



Note:

When sampling for dust concentrations, place the sample collection device:

- In the breathing zone of the operator
- and**
- Outside the respiratory protection worn



Helpful tools:

Sampling for Airborne Contaminant Concentrations

Links you can use to find information on sampling airborne contaminant concentrations in the breathing zone can be found in the Resource section of this chapter

Types of Abrasives used in Blasting Operations

For information on the types of abrasives used in blasting operations, see the Resource section of this chapter

Types of Coatings Removed in Blasting Operations

For information on the types of coatings removed in abrasive blasting, see the Resource section of this chapter.

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Personal protective equipment (PPE)

You must

- Supply and make sure personal protective equipment is worn.
- Follow the requirements in Table-1, Personal Protective Equipment (PPE).



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Personal protective equipment (PPE) (continued)

Table 1
Personal Protective Equipment (PPE)

Provide	When
Abrasive Blasting Respirators	<p>Operators work in any of the following situations:</p> <ul style="list-style-type: none">– Inside blast cleaning rooms– Where silica sand is used in manual blasting operations– Where concentrations of toxic dust exceed the permissible exposure limits found in a separate chapter:<ul style="list-style-type: none">• Respiratory Hazards, WAC 296-841-20020, Table-3 “Exposure Limits for Air Contaminants” <p>Exemption: An abrasive respirator doesn’t need to be worn if the operator is physically separated from the nozzle and blast by an exhaust ventilated enclosure.</p> <p>Definition: Abrasive-blasting respirator A supplied air or a continuous flow respirator constructed to cover and protect the operator’s head, neck and shoulders from rebounding abrasive.</p>
Eye and Face protection to both of the following: <ul style="list-style-type: none">– Blasting operators– Personnel working near blasting operations	Respirators worn during blasting operations don’t provide eye and face protection
Gloves and Aprons made of heavy canvas or leather; or Equivalent protection	Operators are exposed to the impact of rebounding abrasives

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Personal protective equipment (PPE) (continued)



Notes:

- Use only respirators certified by NIOSH in 42 C.F.R. Part 84 for protecting employees from dusts, and other hazards produced during abrasive blasting operations, like:
 - Using a garnet sand to blast a concrete surface, resulting in crystalline silica dust
 - A filtering face piece may be used only for short, intermittent, or occasional dust exposures for any of the following tasks:
 - To protect the operator during abrasive blasting operations performed outside the enclosure or outdoors where nonsilica abrasives are used on materials with low toxicity
 - Clean-up
 - Dumping dust collectors
 - Unloading shipments of sand at receiving areas when the following controls aren't feasible:
 - Enclosures
 - Exhaust ventilation
- or**
- Other means



Reference:

For additional requirements to help you fully protect employees, go to the following separate chapters:

- The Safety and Health Core Rules, Chapter 296-800 WAC:
- Personal Protective Equipment (PPE), WAC 296-800-160
- Respiratory Hazards, Chapter 296-841 WAC
- Respirators, Chapter 296-842 WAC:
 - Respirator program, WAC 296-842-120
 - Specifications for air quality, WAC 296-842-200



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Housekeeping

You must

- Keep aisles and walkways clear of steel shot or similar abrasives that may create a slipping hazard.
- Prohibit the accumulation of dust on the floors or ledges outside blasting enclosures.
- Clean up dust spills promptly.



Note:

Removal of accumulated dust should be done:

- With a high efficiency particulate air filter (HEPA), vacuum cleaner when the plant isn't in operation;
- **and**
- By a person wearing a respirator approved for the existing conditions



Reference:

For additional housekeeping requirements, see the Safety and Health Core Rules, Chapter 296-800 WAC, Housekeeping, WAC 296-800-220.

